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PHOTOGRAPHIC INTERPRETATION REPORT



SAM TEST RANGE
KAPUSTIN YAR/VLADIMIROVKA
MISSILE TEST CENTER
USSR
PART II

Declass Review by NIMA/DOD

OCTOBER 1967
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PHOTOGRAPHIC INTERPRETATION REPORT

**SAM TEST RANGE
KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER
USSR
PART II**

OCTOBER 1967

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

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PREFACE

This report is in partial response to CIA requirement C-DI6-83, 665, which requests a basic report completely updating the latest comprehensive report (PIC/JR-1008/61, March 1961) 1 of the facilities at the Kapustin Yar SAM Test Range, USSR. This requirement requests detailed photo analysis of the following areas:

- a. SAM Launch Complex;
- b. SAM Launch Complex Support Areas;
- c. SAM Instrumentation Sites;
- d. Electronics Test Facility (formerly designated Electronics Research and Development Area);
- e. Kapustin Yar Airfield;
- f. SAM Base Support Complex.

This report satisfies part (b) above and is the second in a series of 4 reports designed to fulfill the requirement. The first report in the series answered part (a). 2 Two forthcoming reports will cover the remainder of the SAM rangehead facilities.

Photography used in the preparation of this report includes

Mission numbers and related photographic data may be obtained from the references at the end of the report; therefore dates alone are referenced in textual chronologies.

All measurements utilized in this report have been computed by the NPIC Technical Intelligence Division. Horizontal dimensions are accurate within ± 5 feet or ± 5 percent, whichever is greater; vertical dimensions are approximations due to difficulty in precisely locating shadow end points.

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INTRODUCTION

The Kapustin Yar Surface-to-Air Missile Test Range is part of the Kapustin Yar/Vladimirovka Missile Test Center (KY/Vlad MTC), USSR (Figure 1). It is approximately 50 nautical miles (nm) east of Volgograd (Stalingrad), on the eastern side of the Volga River. The SAM Rangehead, located north of Kapustin Yar and generally west of the Surface-to-Surface Missile Rangehead, consists of a SAM launch complex, 3 SAM training sites, a SAM housing and support area, a SAM warhead area, a SAM checkout and storage area, a troposcatter and microwave communications facility, an electronics test facility, an airfield, a SAM marshalling area, a SAM base support and housing area, 11 instrumentation sites, and an operational SA-2 site.

This report covers the SAM housing and support area, the SAM warhead area, and the SAM checkout and storage area. The nonrectified line drawings and measurements presented in this report are based on photography of

A number of changes have occurred at the SAM Rangehead since the latest comprehensive report, which was based primarily on photography accomplished in . Among the most significant changes within the SAM launch complex support areas are the increase in the number of buildings at the housing and support area and the addition of 4 revetments and a large drive-through building (whose foundation could be observed under construction in 1959) at the checkout and storage area.

This report contains a description of the facilities and activity, in chronological sequence, and includes nonrectified line drawings, photographs, and photogrammetric data on components of the SAM launch complex support areas.

Annotated photos and nonrectified line drawings are shown for each of the support areas. The tables in this report are used as a supplement to the line drawings with regard to construction chronologies.

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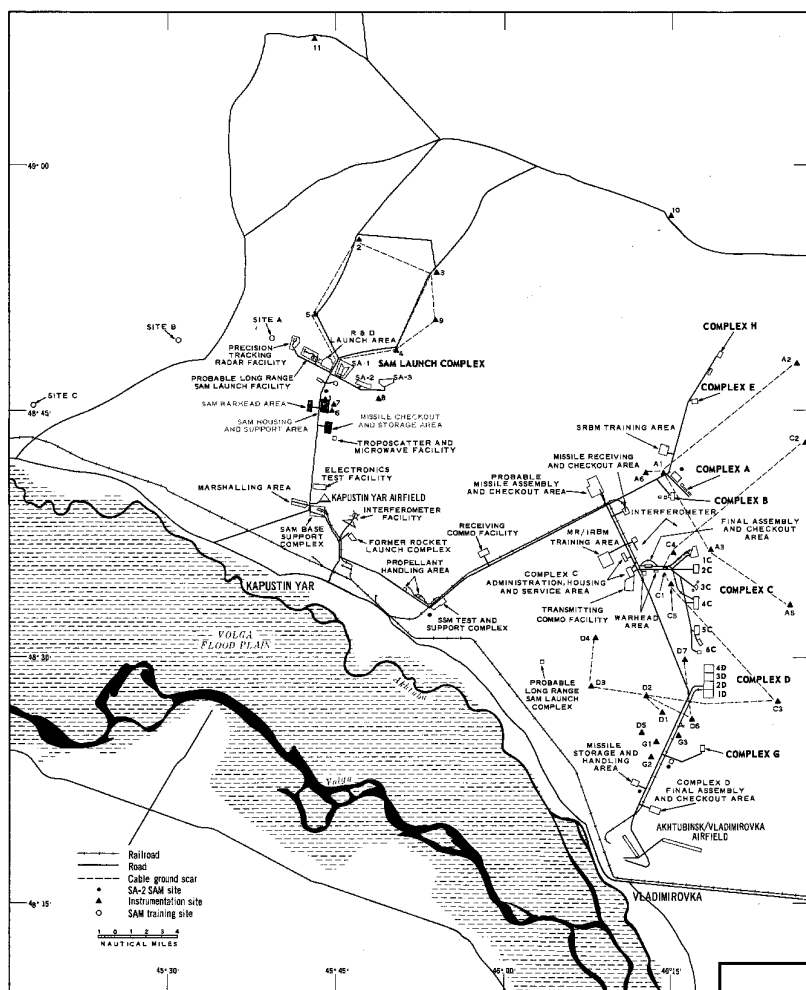


FIGURE 1. KAPUSTIN YAR/VLADIMIROVKA MISSILE TEST CENTER, USSR.

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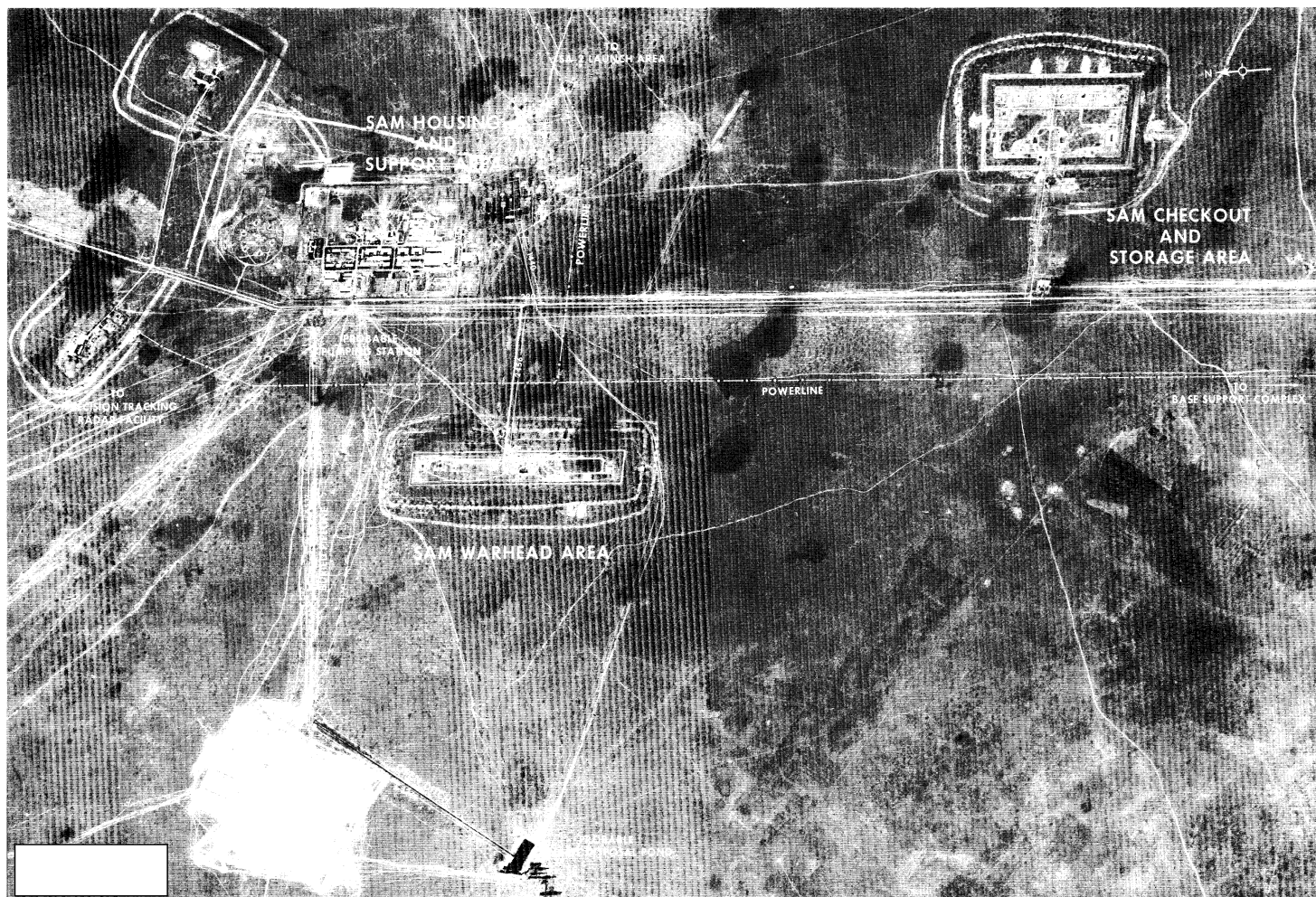


FIGURE 2. SAM LAUNCH COMPLEX SUPPORT AREAS, KY/VLAD MTC.

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SAM HOUSING AND SUPPORT AREA

The entrance to the SAM Housing and Support Area (Figures 2, 3, and 4) is located approximately 1.94 nm by road south of the SAM launch complex and adjacent to the eastern side of the SAM launch complex main service road at approximately 48-46N 45-44E. The area is comprised of 2 separately fenced sections, A and B, and a probable pumping station on the western side of the main service road opposite Section A. Several changes have been made in the alignment of the fenceline along the southern portion of Section A since 1959. 1/

Section A. The larger of the 2 sections, Section A, covers a fenced area of approximately 127 acres. Within the fenced area are 17 multistory barracks-type buildings with a total estimated floorspace of approximately [redacted] feet. Although the 17 multistory buildings are considered to be living quarters, it is highly probable that some of them serve as classrooms. One multistory building and 7 single-story buildings located within the proximity of the 17 multistory buildings may serve as living quarters, but they probably serve as classrooms and/or support buildings for the SAM Housing and Support Area. These 8 buildings constitute a total estimated floorspace of approximately [redacted] feet. The remainder of the area includes 2 motor pools with 3 large vehicle maintenance buildings (items 48b, 49, and 85, Figure 4), several recreation areas, a heating complex, and numerous support buildings. The small heating plant (item 53), which probably utilized coal as fuel, was probably replaced in 1964. The later heating plant (item 54) probably utilizes oil as fuel, due to the presence of a nearby tank (item 57), constructed in 1964, and to the absence of a coal stockpile in the area.

Equipment observed within Section A on [redacted] consists of 2 cranes (probably truck mounted), 55 trucks, 30 unidentified vehicles, 7 possible trailer cabs, 7 possible trailers, and 21 unidentified vehicles/pieces of equipment. The majority of the vehicles and equipment are located in the motor pools, with the remainder positioned along the eastern fenceline.

Section B. Section B, located immediately south of Section A, covers an irregularly shaped fenced area of approximately 16 acres. It contains 6 storage-type buildings, an earth-mounded bunker, a possible administration building,

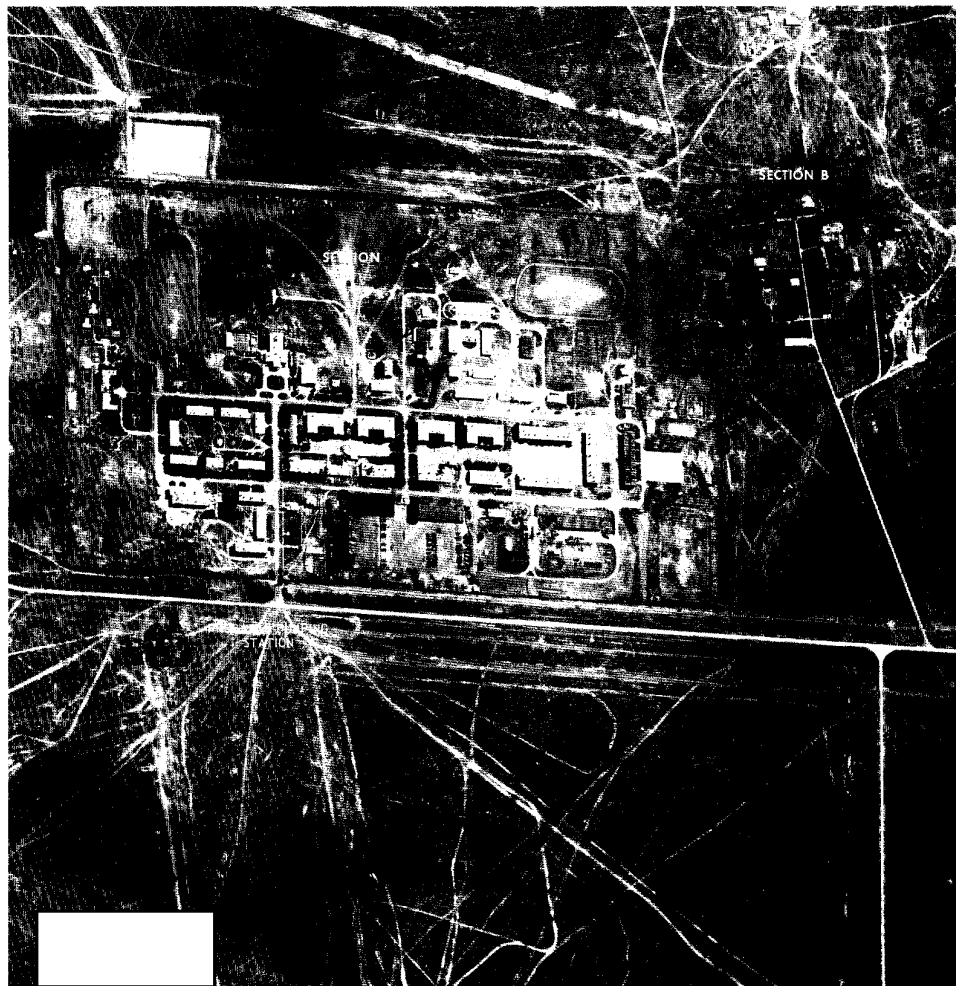


FIGURE 3. SAM HOUSING AND SUPPORT AREA.

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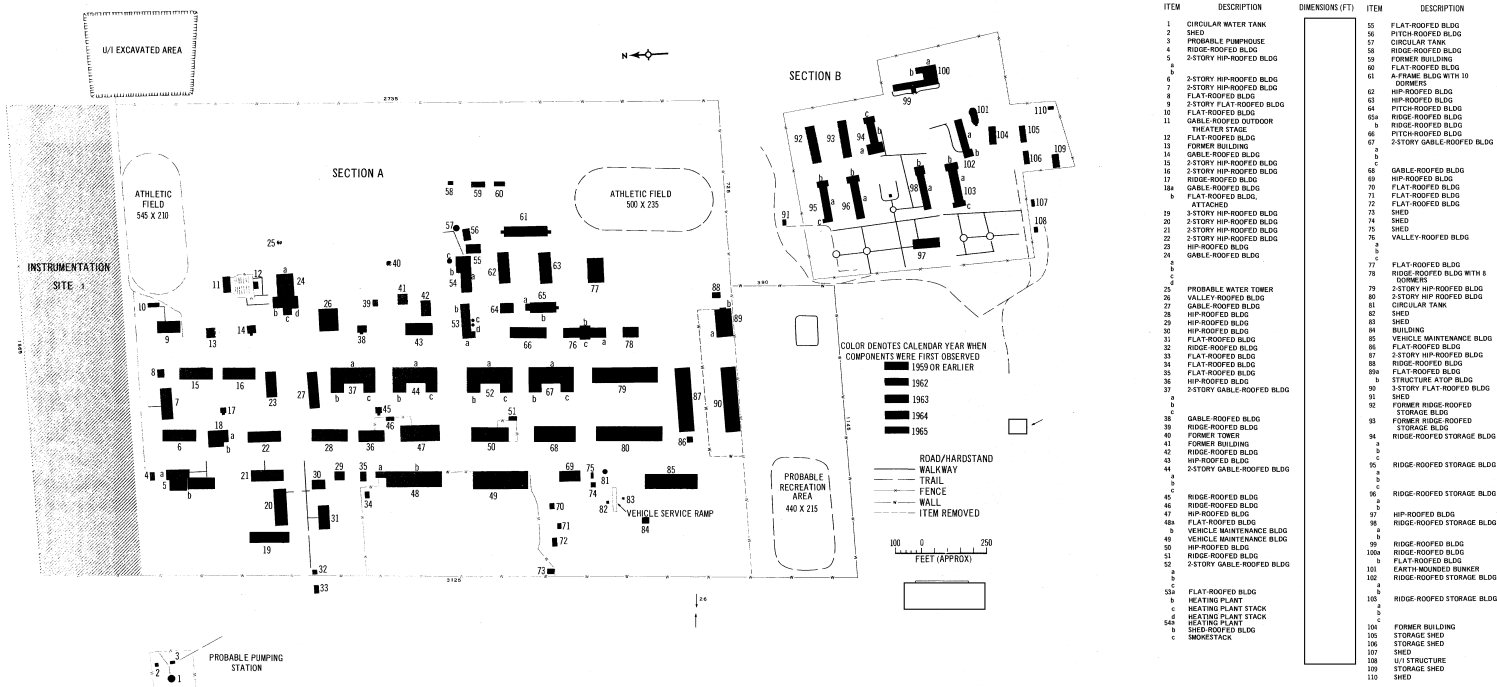


FIGURE 4. SAM HOUSING AND SUPPORT AREA.

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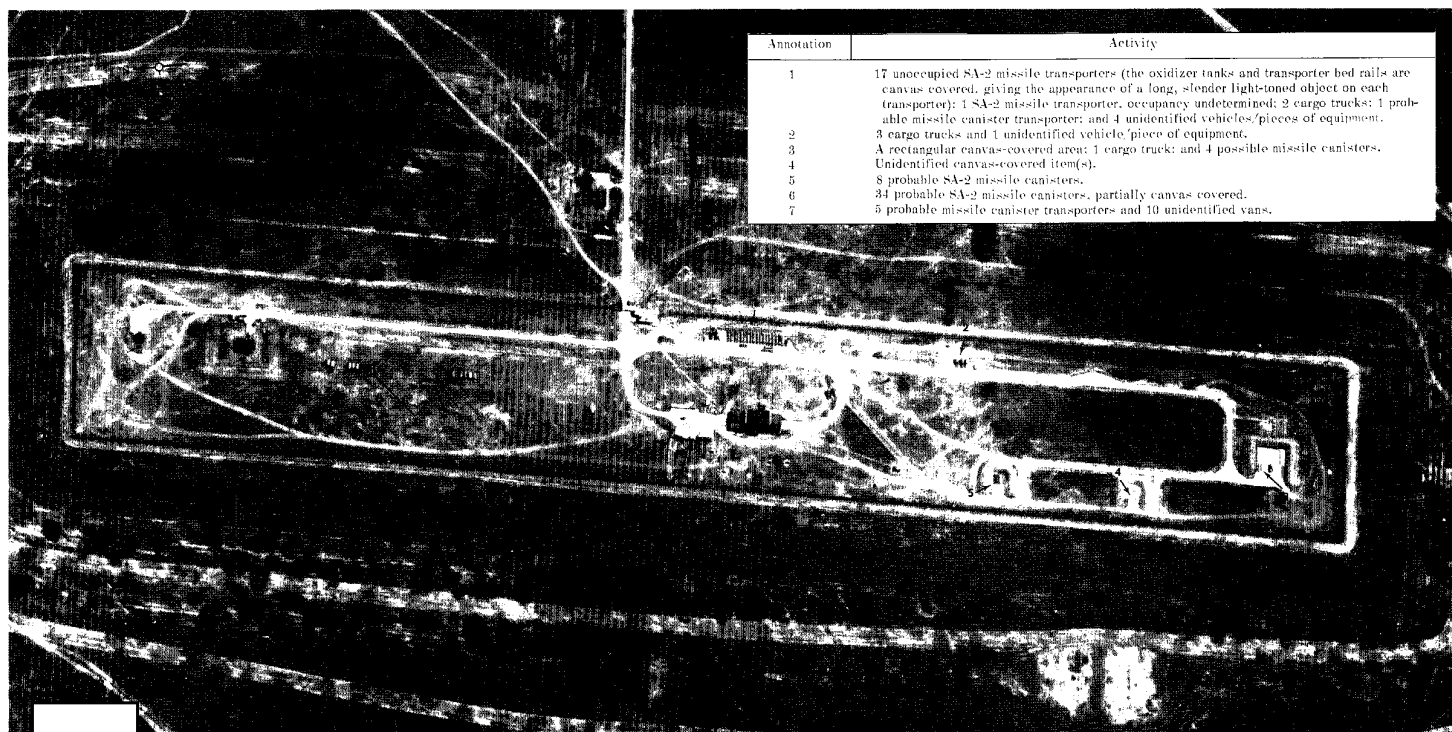
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FIGURE 5. SAM WARHEAD AREA.

25X1 and several miscellaneous buildings. The only change that has taken place in this section since [redacted] is the removal of 3 of the storage-type buildings and the addition of several small buildings and structures. This section is probably used as a storage area.

25X1 A chronological listing of buildings, fencelines, etc., that have appeared or have been removed from the SAM Housing and Support Area since [redacted] is given in Table 1, and a yearly chronological sequence of these items is shown on Figure 4.

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SAM WARHEAD AREA

The SAM Warhead Area (Figures 2, 5, and 6) is located on the western side of the SAM launch complex main service road approximately 0.87 nm by road west of the SAM housing and support area and approximately 2.17 nm by road north of the SAM checkout and storage area at approximately 48-46N 45-43E.

The area, present in [redacted] but not clearly observed until [redacted] due to photography of poor in-

terpretability and small scale, is served by an all-weather road connecting it with the main service road. The area is secured by a triple fence, guard posts within the inner fence, and a security building at the entrance. Within the secured area is a security building (item 7, Figure 6), 2 flat-roofed apron-served buildings (items 1 and 2), one of which is secured by a fence, a large drive-through building which has a high center section between single-story monitor-roofed end sections (Figure 6, item 11, and Figure 6A), 3 revetted paved aprons (items 14, 15, and 17, Figure 6), an earth-

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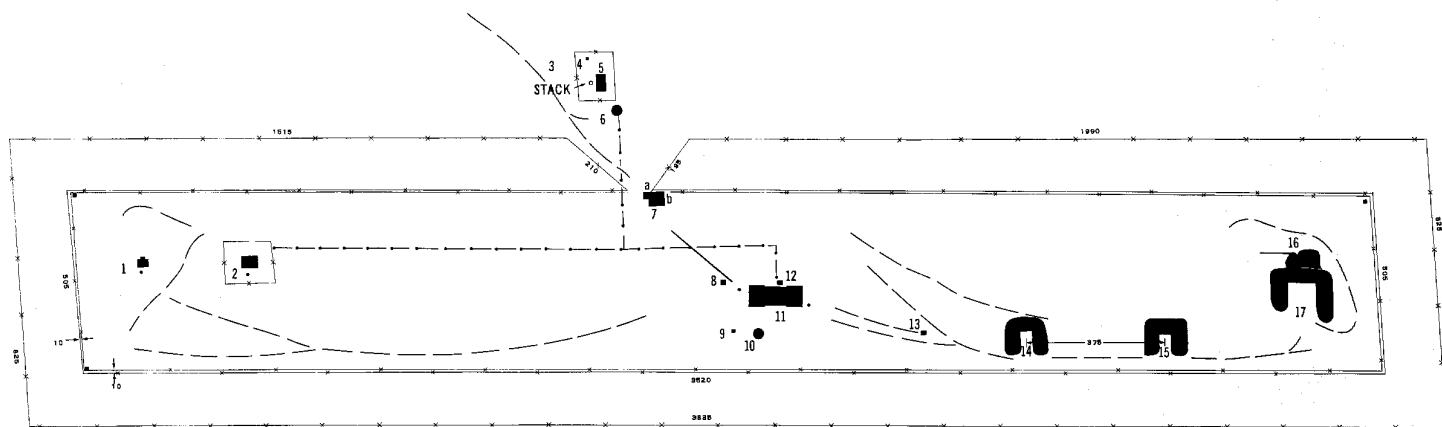


FIGURE 6. SAM WARHEAD AREA.

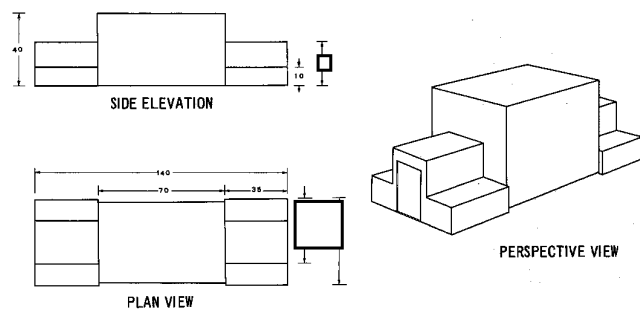


FIGURE 6A. DRIVE-THROUGH BUILDING AT WARHEAD AREA.

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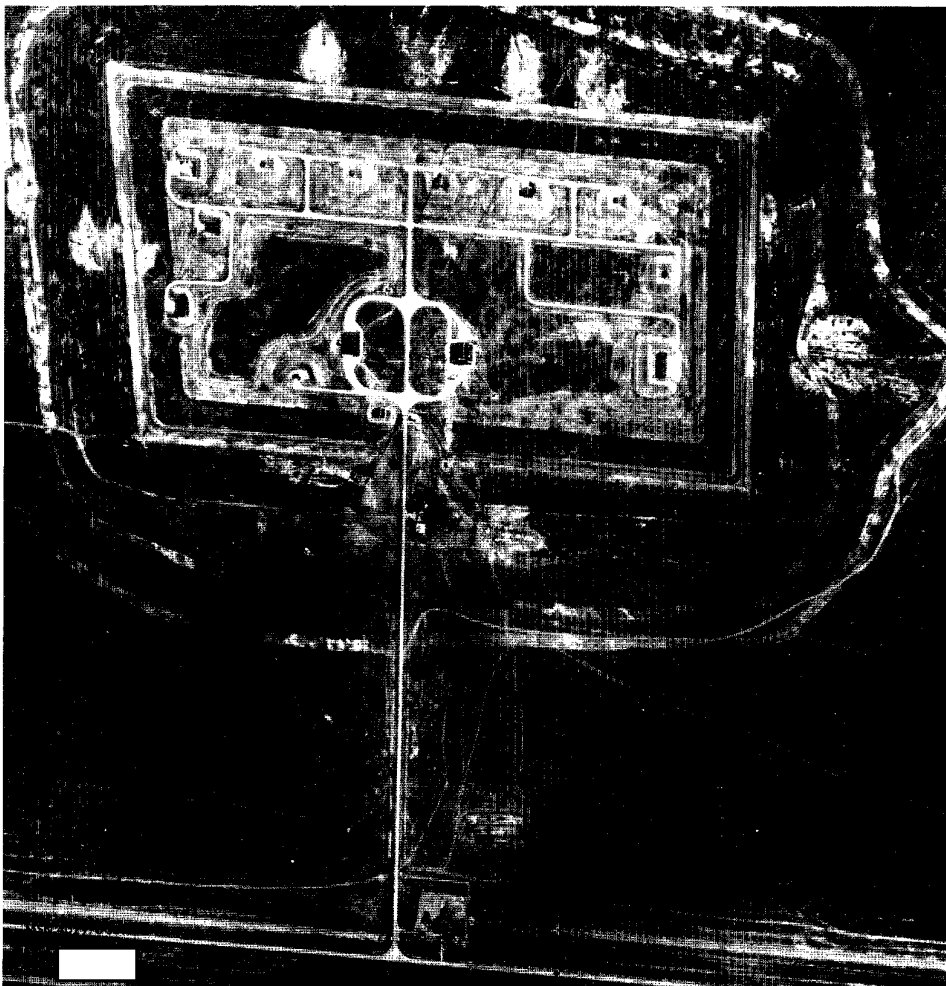


FIGURE 7. SAM CHECKOUT AND STORAGE AREA.

mounted bunker (item 16) which abuts the largest of the 5
revetted paved aprons, a buried tank (item 10), and several
small buildings and structures. One of the structures (item
12) appeared to be a water tower in [redacted] 1/ Al-
though it does not appear to be a vertical water tower in [redacted]
[redacted] it may serve as a liquid storage structure, since a
possible buried pipeline appears to terminate at the struc-
ture. Earth scarring, where the possible buried pipeline is
located, was first observed in [redacted] Two narrow gable-
roofed buildings formerly located on 2 of the revetted paved
aprons (items 14 and 15) are no longer present. 1/ No other
changes have occurred within the secured portion of the area
through [redacted]

A short distance outside the entrance to the secured
area, on the northern side of the access road, are a buried
tank (item 6), an unidentified structure and a probable heat-
ing plant secured by a single fence (items 4 and 5), and a
possible building foundation under construction (item 3). The
latter was newly observed on photography of [redacted]
(For description and location of activity observed at the SAM
Warhead Area on [redacted] refer to Figure 5.)

SAM CHECKOUT AND STORAGE AREA

The SAM Checkout and Storage Area (Figures 2, 7, and 8)
is located on the eastern side of the SAM launch complex
main service road approximately 2.23 nm by road south of the
SAM housing and support area at approximately 48-44N
45-44E. The area, present in [redacted] but not clearly
observed until [redacted] due to photography of poor
interpretability and small scale, is served by an all-weather
paved access road connecting it with the SAM launch complex
main service road. The area is triple fenced and has a se-
curity building at the entrance. Within the secured area are
10 revetted storage buildings, a revetted dome or spherical
tank adjacent to a small building (items 21 and 22, Figure 8),
a ridge-roofed drive-through building (Figure 8, item 19,
and Figure 8A), a flat-roofed drive-through building (Figure
8, item 13, and Figure 8B), a revetted paved storage apron
(item 1, Figure 8), a small revetment (item 7), a small paved
hardstand (item 10), 3 miscellaneous buildings, and several
unidentified structures. A number of the components in the
area have appeared since [redacted] Figure 8 shows a

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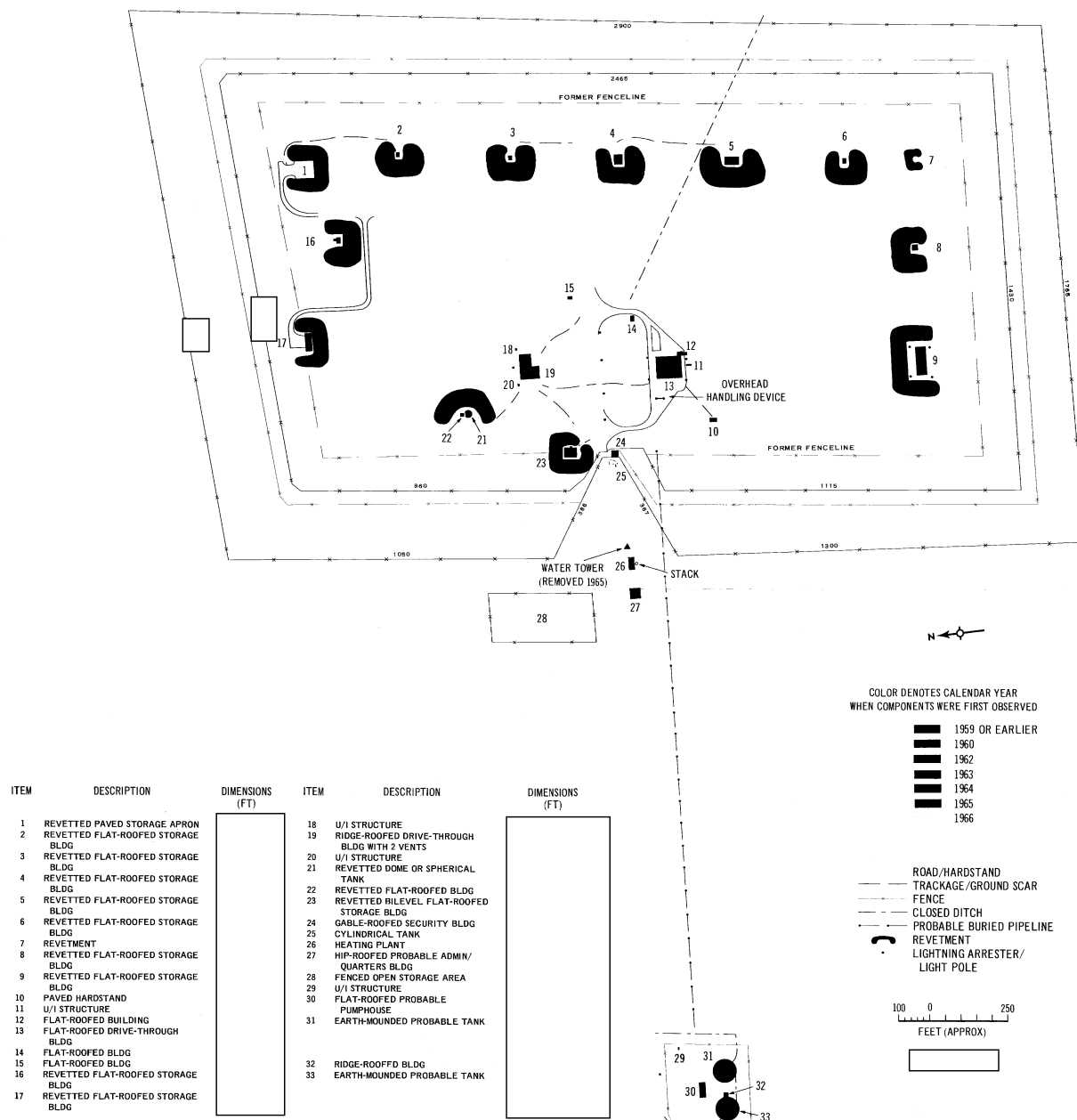


FIGURE 8. SAM CHECKOUT AND STORAGE AREA.

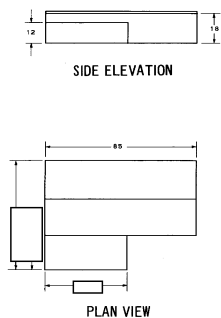


FIGURE 8A. DRIVE-THROUGH BUILDING AT CHECKOUT AND STORAGE AREA.

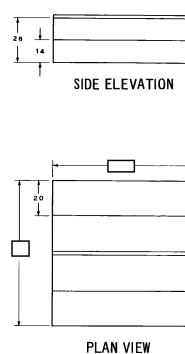


FIGURE 8B. DRIVE-THROUGH BUILDING AT CHECKOUT AND STORAGE AREA.

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yearly chronological sequence of components added since 1959, and Table 2 gives the time frame of each component with regard to negation, first observed, and probable completion dates.

In [] the initial construction stage of the later identified drive-through building (item 13) was observed. By [] the paved road pattern serving this building was discernible. The building, not clearly identified until [] was probably completed sometime between []

A probable storage

building (item 23), observed in a late stage of construction in [] was probably completed shortly after this date, but this could not be confirmed on photography until [] Also, the building had been revetted by []

Outside the secured area, along the southern side of the access road, is a cylindrical tank (item 25), a small heating plant (item 26), and a hip-roofed building (item 27) which probably serves as an administration and/or quarters building. A small water tower, present in 1959, was removed in

[] On the northern side of the access road is a fenced open storage area (item 28).

Near the junction of the access road with the main service road is a fenced area containing a small unidentified structure (item 29), a probable pumphouse (item 30), 2 probable earth-mounded tanks (items 31 and 33), and a small ridge-roofed building (item 32) near one of the probable earth-mounded tanks. A probable buried pipeline extends from this area toward the secured checkout and storage area.

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REFERENCES (Continued)

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MAPS OR CHARTS

- ACIC chart, scale 1:200,000, Jun 66
ACIC chart, scale 1:200,000, Apr 64
AMS map, scale 1:250,000, May 61

DOCUMENTS

1. CIA. PIC/JR-1008/61, *Surface-to-Air Missile Facilities, Kapustin Yar/Vladimirovka Missile Test Center, USSR*, Mar 61
(SECRET [REDACTED])
2. NPIC. [REDACTED] *SAM Test Range, Kapustin Yar/Vladimirovka Missile Test Center, USSR*, Part I, Sep 67 (TOP SECRET [REDACTED])

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RELATED DOCUMENTS

- NPIC. R-126/63, *Surface-to-Air Missile Facilities, Kapustin Yar/Vladimirovka Missile Test Center, USSR, Changes Since* [REDACTED]
(TOP SECRET [REDACTED])

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- [REDACTED]
NPIC. R-5139/64, [REDACTED] *SAM Launch Complex, Kapustin Yar/Vladimirovka Missile Test Center, USSR*, Sep 64
(TOP SECRET [REDACTED])

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REQUIREMENT

CIA. C-DI6-83,665

NPIC PROJECT

11663/66 (partial answer)

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